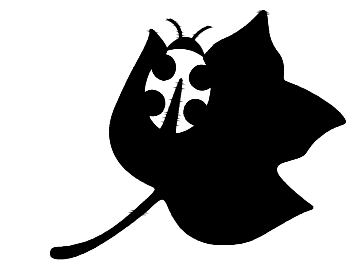
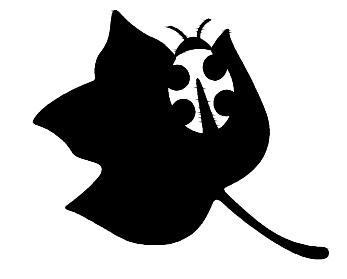
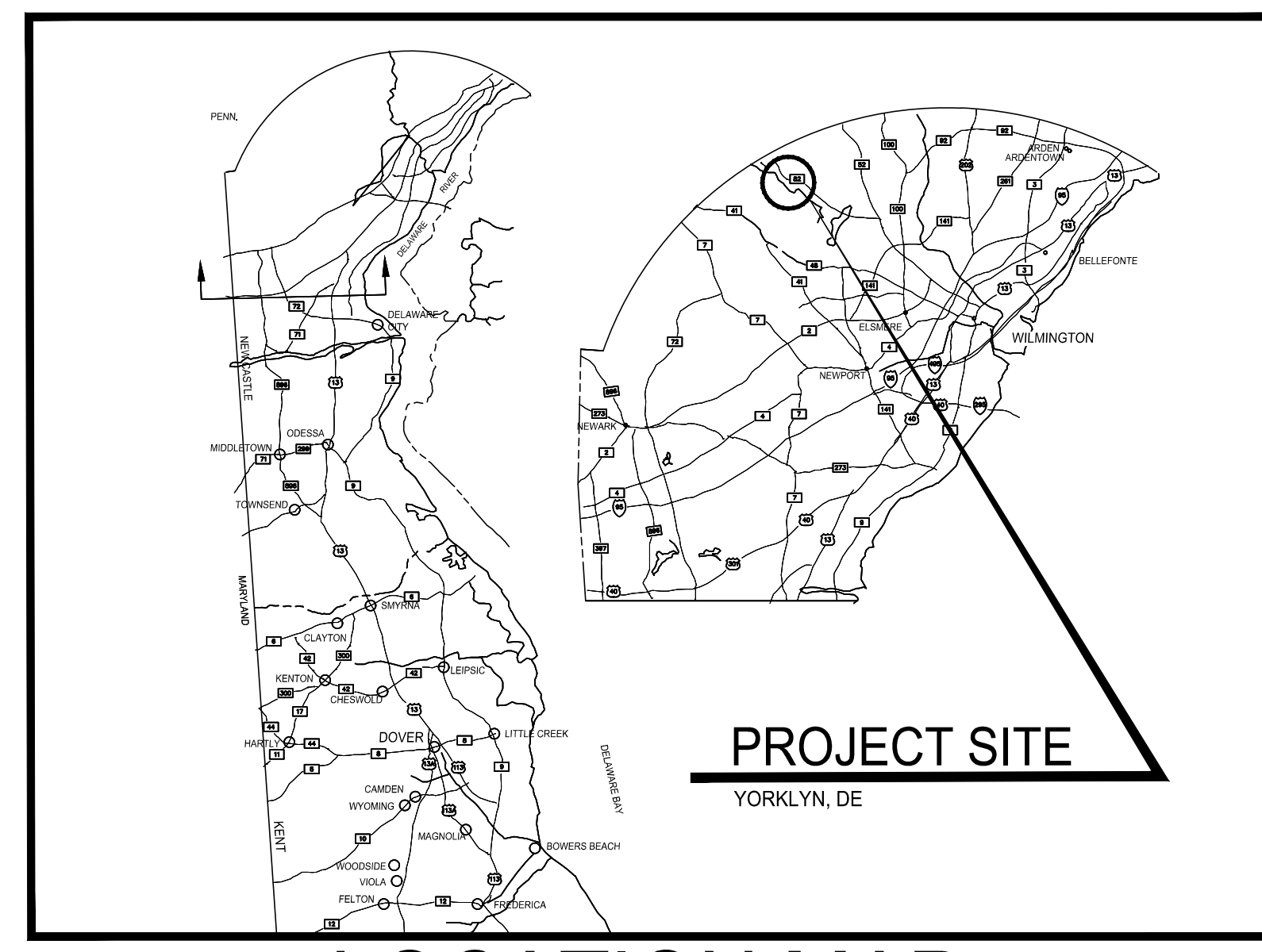


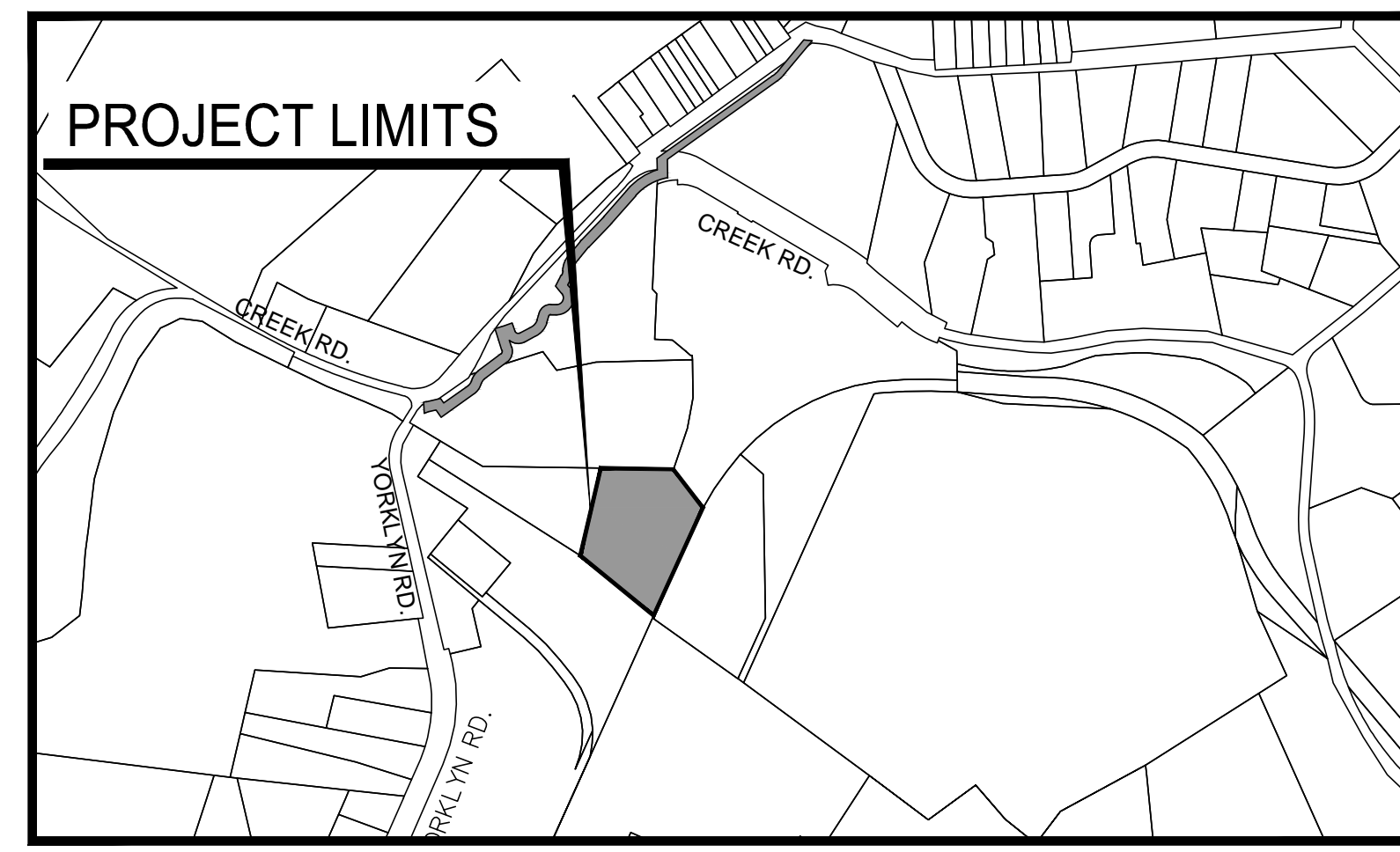
STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL  
DIVISION OF PARKS AND RECREATION



NVF - AUBURN HEIGHTS PRESERVE  
PLAZA AND ARTS TRAIL CONNECTOR

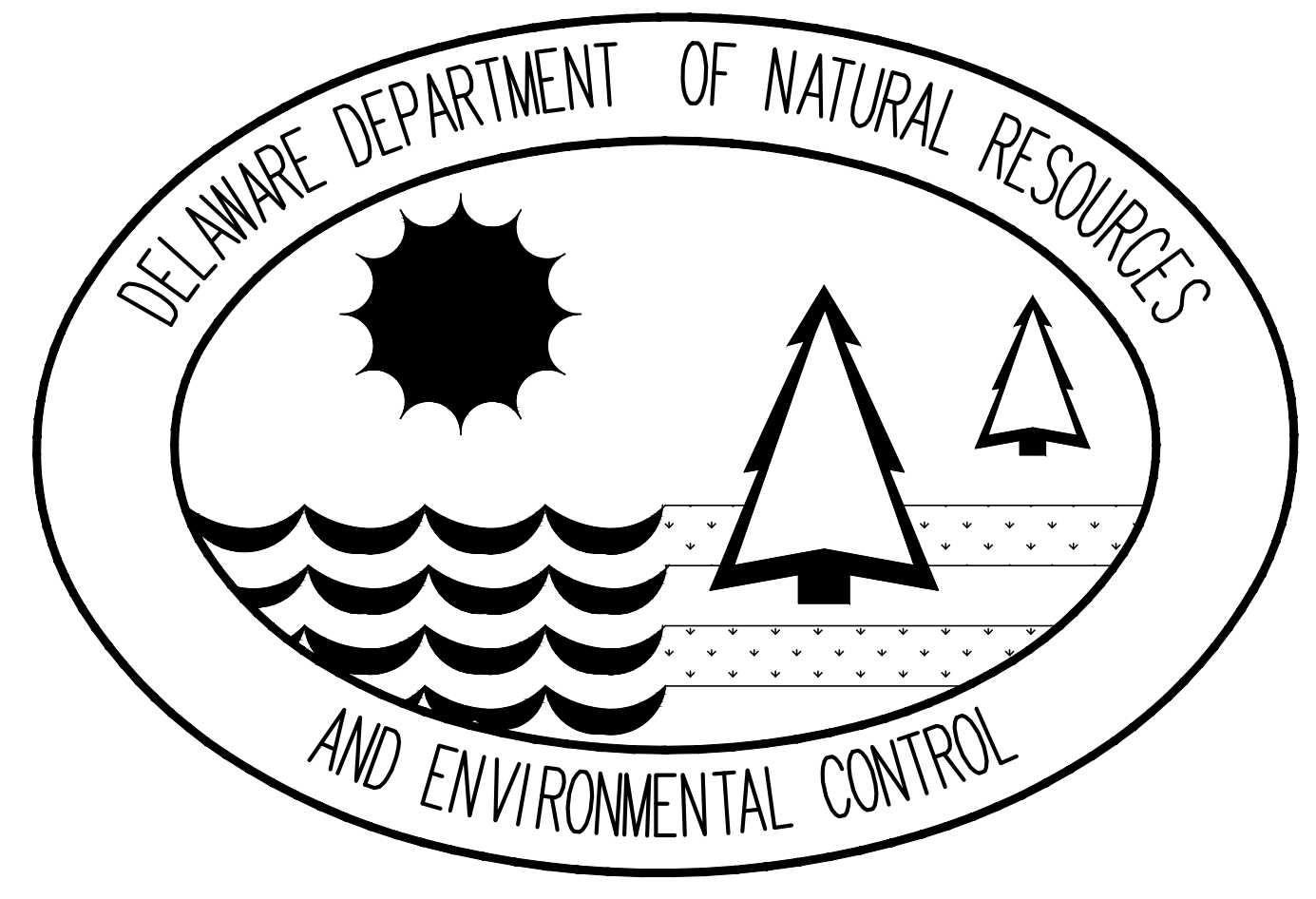


LOCATION MAP



SITE MAP

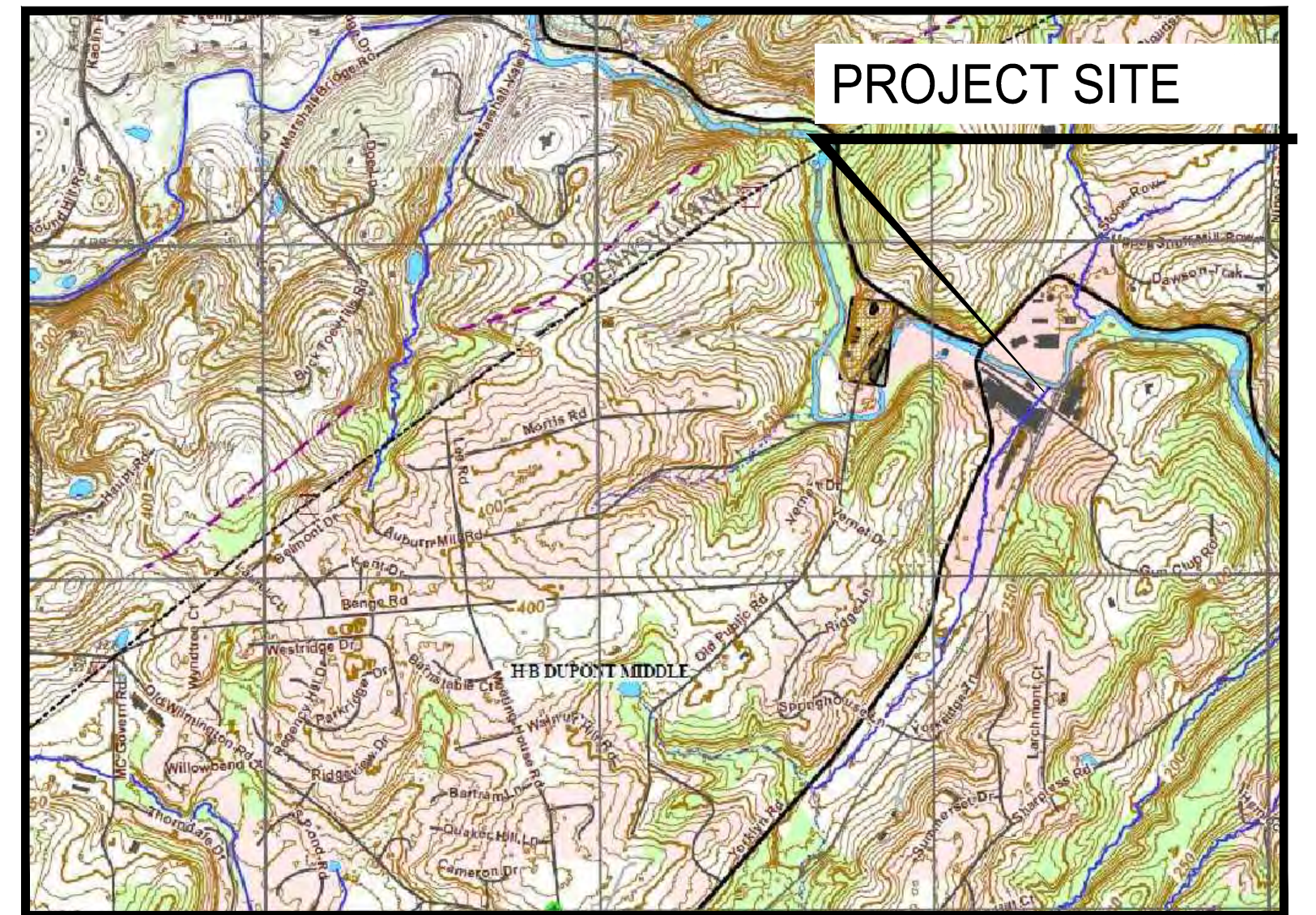
CONTRACT NO. \_\_\_\_\_  
CEI PROJECT NO. 125002.23  
AUGUST 2018



30% PLAN SUBMISSION

INDEX OF SHEETS FOR PROJECT NO.:

SHEET NO.:	TITLE
C300	COVER SHEET
C301	PROJECT NOTES AND TYPICAL SECTIONS
C302	EXISTING CONDITIONS AND DEMOLITION PLAN
C303	HORIZONTAL ALIGNMENT PLAN
C304	SITE CONSTRUCTION PLAN - TURNTABLE AND PLAZA
C305	SITE CONSTRUCTION PLAN - TRAIL
C306	SITE STRUCTURE DETAILS
SSMP401	EROSION & SEDIMENT CONTROL PLAN
SSMP402	EROSION & SEDIMENT CONTROL DETAILS
SSMP403	EROSION & SEDIMENT CONTROL DETAILS
SSMP404	EROSION & SEDIMENT CONTROL DETAILS
S601	TURNTABLE STRUCTURE DETAILS
S602	TURNTABLE PIT DETAILS
S603	TURNTABLE DECK FRAMING DETAILS
S604	CONCEPTUAL APPROACH SPAN DETAILS



USGS QUADRANGLE MAP

CIVIL ENGINEER  
PREPARED BY:  
**CENTURY**  
ENGINEERING  
CONSULTING ENGINEERS, SURVEYORS  
4134 N. DUPONT HWY. DOVER, DELAWARE 19901 (302) 734-9186

SIGNATURE \_\_\_\_\_  
DATE \_\_\_\_\_

125002.23  
STAMP

CLIENT  
**OFFICE OF DESIGN & DEVELOPMENT**  
DELAWARE DIVISION OF PARKS & RECREATION  
89 KINGS HIGHWAY  
DOVER, DELAWARE 19901  
(302) 739-9231  
(302) 739-7026 (FAX)

C:\PROJECTS\125002.23\125002.23 (8) Turntable, Plaza and Arts Trail Connector\CADD FILES\Sheet\Plaza & Trail Connector\Construction Plans\C300\_CoverSheet.dwg 8/13/2018 11:38 AM



PROJECT NOTES

- THE INTENT OF THIS PROJECT IS TO CONSTRUCT A 14,858± S.F. CONCRETE PAVER PLAZA, OPERATING RAILROAD TURNTABLE, RAILROAD SPUR, RETAINING WALLS AND RAMPS, 70.0'± WOOD DECK NORTH APPROACH SPAN, AND A 157.50'± L.F. 15 FOOT WIDE ASPHALT PEDESTRIAN WALKWAY, AS SHOWN ON THESE PLANS. ALL PAVING SHALL BE WARM MIX ASPHALT UNLESS SHOWN DIFFERENTLY. THE ASPHALT PEDESTRIAN WALKWAY SHALL FOLLOW, AS CLOSELY AS POSSIBLE, THE EXISTING GRADE WHILE MAINTAINING THE REQUIRED CROSS SLOPE AND RUNNING SLOPE SHOWN ON THE TYPICAL SECTIONS AND PROFILE. MINOR ADJUSTMENT IN THE ALIGNMENT AND/OR PROFILE MAY BE REQUIRED BY THE ENGINEER IN THE FIELD.
- EXCESS EXCAVATED MATERIAL SHALL BE STOCKPILED WITHIN AUBURN HEIGHTS PRESERVE AT A LOCATION TO BE DETERMINED BY THE ENGINEER. ADDITIONAL LOCATIONS FOR STOCKPILE/STORAGE AREAS SHALL BE COORDINATED WITH THE ENGINEER AND APPROVED BY THE DNREC SEDIMENT AND STORMWATER MANAGEMENT PROGRAM PRIOR TO THE START OF WORK. ALL STOCKPILE AREAS SHALL BE STABILIZED DURING CONSTRUCTION, AND REDRESSED AFTER CONSTRUCTION IN ACCORDANCE WITH EROSION AND SEDIMENT CONTROL REQUIREMENTS. COST SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR THE PROJECT.
- CONTRACTOR SHALL ONLY EXCAVATE AS MUCH TRAIL ALIGNMENT AS CAN BE BACKFILLED WITH BASE COURSE STONE AND STABILIZED IN ONE DAY. DO NOT EXCAVATE IF IT WILL NOT BE STABILIZED IN THE SAME DAY.
- PORTIONS OF THIS CONTRACT ARE TO BE CONSTRUCTED IN ACCORDANCE WITH DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (STANDARD SPECIFICATIONS) DATED AUGUST 2001 INCLUDING ALL REVISIONS UP TO ADVERTISEMENT OF THIS PROJECT, UNLESS NOTED OTHERWISE IN THESE PLANS OR THE SPECIFICATIONS. ITEMS INCLUDING, BUT NOT LIMITED TO, THE HOT MIX ASPHALT PAVING, REFER TO THE "STANDARD SPECIFICATIONS" FOR METHOD OF CONSTRUCTION.
- ALL EXCAVATION FOR CONSTRUCTION OF THE PROPOSED TRAIL, PLAZA, AND TURNTABLE SHALL BE IN ACCORDANCE WITH SECTION 202 – EXCAVATION AND EMBANKMENT, OF THE DELDOT STANDARD SPECIFICATIONS.
- CLEARING AND GRUBBING IS ASSUMED TO EXTEND A MINIMUM OF SIX (6) INCHES BELOW EXISTING GRADE FOR THE LENGTH OF THE PROJECT. IN AREAS WHERE LARGE BOULDERS OR ROCK ARE ENCOUNTERED IN PAVEMENT SECTIONS, THE BOTTOM OF THE GABC LAYER SHALL BE LOCATED AT THE TOP OF ROCK AS DIRECTED BY THE ENGINEER. CLEARING AND GRUBBING WITHIN THE LIMITS OF DISTURBANCE (LOD) SHALL CONSIST OF CLEARING, GRUBBING, REMOVING AND LEGAL DISPOSING OF ALL TREES, VEGETATION AND DEBRIS OFF SITE.
- TREE TRIMMING SHALL BE LIMITED TO A CORRIDOR NOT EXCEEDING 20 FEET WIDE AND 15 FEET HIGH CENTERED ON THE TRAIL BASE LINE.
- ALL TREE REMOVAL AND TREE TRIMMING WITHIN THE LIMITS OF DISTURBANCE, REGARDLESS OF SIZE, SHALL BE INCIDENTAL TO THE CONTRACT. EXISTING TREES LESS THAN 6" IN DIAMETER ARE NOT SHOWN ON THE DRAWINGS. TREES WITHIN THE LIMITS OF DISTURBANCE WHICH ARE GREATER THAN 6" DIAMETER ARE SHOWN ON THE DRAWINGS FOR INFORMATIONAL PURPOSES. TREES GREATER THAN 6" IN DIAMETER SHALL BE FLAGGED BY THE CONTRACTOR FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO REMOVAL. THE ENGINEER WILL NOT ACCEPT REMOVAL OF TREES INTENDED TO BE PROTECTED.
- TREES NOT DESIGNATED TO BE REMOVED SHALL BE PROTECTED FROM CONSTRUCTION EQUIPMENT AND COMPACTION OF SOIL WITHIN THE DRIP LINE AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLANS.
- EXISTING UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION. COMPLETENESS OR CORRECTNESS THEREOF IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITY COMPANIES INVOLVED IN ORDER TO SECURE THE MOST ACCURATE INFORMATION AVAILABLE AS TO UTILITY LOCATION AND ELEVATION. NO CONSTRUCTION AROUND OR ADJACENT TO UTILITIES SHALL BEGIN WITHOUT NOTIFYING THEIR OWNERS AT LEAST 48-HOURS IN ADVANCE. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE AND ANY DAMAGE DONE TO THEM DUE TO HIS/HER NEGLIGENCE SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT THE CONTRACTOR'S EXPENSE. TO LOCATE EXISTING UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT MISS UTILITY OF DELAWARE. MISS UTILITY OF DELAWARE SHALL BE NOTIFIED TWO (2) CONSECUTIVE WORKING DAYS PRIOR TO EXCAVATION, AT 1-800-282-8555.
- THESE DRAWINGS DO NOT INCLUDE ANY HAZARDOUS MATERIALS THAT MAY OR MAY NOT EXIST WITHIN THIS SITE. IN THE EVENT THAT HAZARDOUS MATERIALS ARE LOCATED, THE CONTRACTOR SHALL IMMEDIATELY STOP WORK AND CONTACT THE ENGINEER.
- EXISTING TURNTABLE BEAMS, CENTER BEARING, AND RING RAILS TO BE RESTORED BY OTHERS. ACTUAL DIMENSIONS OF ALL ELEMENTS SHALL BE PROVIDED FOLLOWING THE RESTORATION PROCESS. DIMENSIONS SHOWN THROUGHOUT THESE PLANS ARE APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER.

GENERAL NOTES

- THE BASE SURVEY, INCLUDING ALL CONTOURS AND ELEVATIONS, IS BASED ON AERIAL SURVEY PROVIDE BY DNREC PARKS.
- THE CONTRACTOR SHALL PROTECT ALL FEATURES NOT DESIGNATED TO BE REMOVED. DAMAGED ITEMS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY DNREC, AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL ONLY WORK WITHIN THE DESIGNATED LIMIT OF DISTURBANCE (LOD). ALL RUTS AND DEPRESSIONS CAUSED BY CONSTRUCTION ACTIVITY SHALL BE FILLED, TOPSOILED, SEEDED AND MULCHED TO MATCH THE ADJACENT AREA.
- THE CONTRACTOR SHALL PROVIDE NECESSARY FACILITIES, INCLUDING BUT NOT LIMITED TO CONSTRUCTION TRAILER, STORAGE FACILITIES, AND RESTROOMS, DURING CONSTRUCTION.
- THE CONTRACTOR SHALL NOTE THAT IN CASE OF DISCREPANCY BETWEEN THE SCALED AND THE FIGURED DIMENSIONS SHOWN ON THE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING ALL DIMENSIONS.
- THE CONTRACTOR SHALL DESIGNATE A PERSON WHO SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING THE EROSION AND SEDIMENT CONTROL PLANS, A PERSON WHO SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING THE TRAFFIC CONTROL, AND A PERSON WHO SHALL BE RESPONSIBLE FOR WORKER SAFETY. THE PERSON RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING THE EROSION AND SEDIMENT CONTROL PLANS SHALL BE CERTIFIED BY DNREC FOR EROSION AND SEDIMENT CONTROL RESPONSIBILITY (CERTIFIED CONSTRUCTION REVIEWER – BLUE CARD).
- THESE DRAWINGS DO NOT INCLUDE NECESSARY ELEMENTS OF CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE COMPLETED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT, AND ALL FEDERAL, STATE AND LOCAL REQUIREMENTS. CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SITE SAFETY.
- NO DEBRIS SHALL BE BURIED OR BURNED ON THE SITE UNLESS SPECIFICALLY NOTED WITHIN THESE PLANS OR SPECIFICATIONS.
- BLASTING SHALL NOT BE ALLOWED.
- WETLANDS ARE NOT PRESENT WITHIN PROJECT LIMITS.
- NORMAL WATER SURFACE ELEVATION IN RED CLAY CREEK IS APPROXIMATELY 166.50FT PER DNREC SURVEY. BASE FLOOD ELEVATION IS APPROXIMATELY 178.43FT PER FEMA FLOOD MAP10003C0045K.

MATERIALS:

THE CONTRACTOR SHALL OBTAIN A COPY OF THE DELDOT STANDARD SPECIFICATIONS, EITHER ON LINE OR HARD COPY, FOR REFERENCE TO ITEM NUMBERS NOTED IN THESE PLANS. MATERIALS SHALL CONFORM TO THE FOLLOWING DELDOT SPECIFICATIONS, UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER:

- HOT-MIX ASPHALT:
  - ITEM 401046 – WARM MIX, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 76-22 (NON-CARBONATE STONE).
  - ITEM 401016 – WARM MIX, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 76-22.
- BASE COURSE:
  - ITEM 301003 – GRADED AGGREGATE BASE COURSE, TYPE B.
- GEOTEXTILE:
  - ITEM 708002 – GEOTEXTILES SEPARATION.

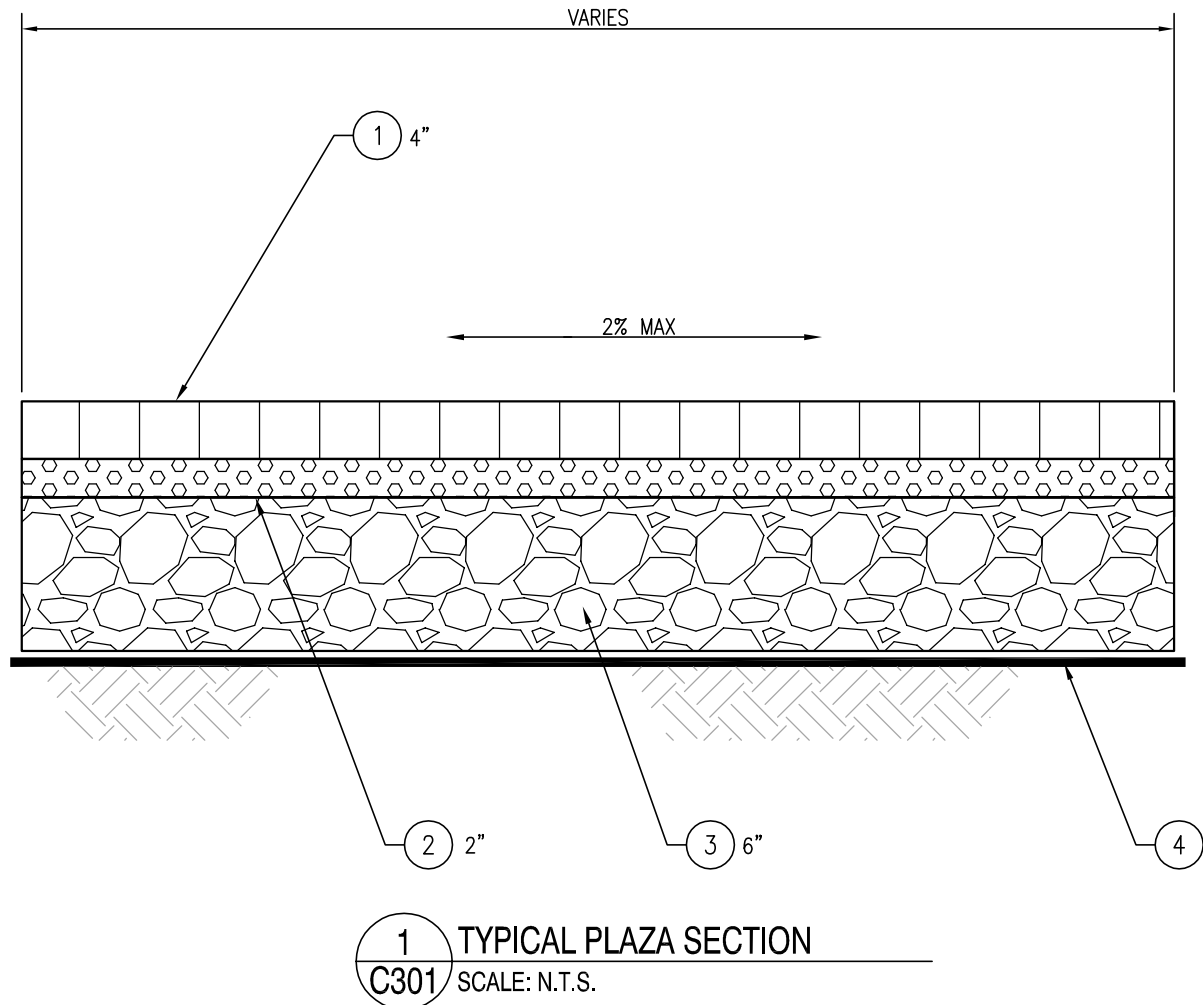
THE CONTRACTOR SHALL OBTAIN A COPY OF THE DNREC DELAWARE EROSION & SEDIMENT CONTROL HANDBOOK FOR REFERENCE TO STANDARD DETAILS AND METHODS FOR STABILIZATION AND POLLUTION CONTROL INCLUDING, BUT NOT LIMITED TO:

- SILT FENCE,
- TOPSOILING,
- STABILIZED CONSTRUCTION ENTRANCE
- VEGETATIVE STABILIZATION,
- MULCHING,
- DUST CONTROL,
- CONSTRUCTION SITE WASTE MANAGEMENT & SPILL CONTROL,
- SENSITIVE AREA PROTECTION,

SPECIFICATIONS

ELEMENTS UNDER THIS CONTRACT SHALL BE CONSTRUCTED UTILIZING THE FOLLOWING INFORMATION IN THE HIERARCHY LISTED BELOW:

- CONTRACT AGREEMENT BETWEEN OWNER AND CONTRACTOR.
- APPROVED PLANS.
- PROJECT MANUAL AND ENCLOSED TECHNICAL SPECIFICATIONS.
- STATE OF DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL EROSION AND SEDIMENT CONTROL HANDBOOK, APRIL 2014 OR MOST CURRENT AT DATE OF ADVERTISEMENT.
- DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DETAILS, 2017, OR MOST CURRENT AT ADVERTISEMENT.
- DELAWARE DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS FOR BRIDGE AND ROAD CONSTRUCTION, 2016, OR MOST CURRENT AT DATE OF ADVERTISEMENT.



LEGEND

- BRICK AND/OR BLOCK SIDEWALK (ITEM NO. 705504)
- DELAWARE NO. 8 STONE (ITEM NO. 302003)
- DELAWARE NO. 57 STONE (ITEM NO. 302005)
- GEOTEXTILE FABRIC (NON-WOVEN, TYPE G0-2)

REVISIONS:

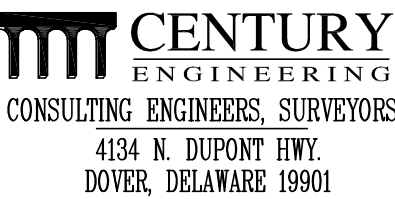
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NVF - AUBURN HEIGHTS PRESERVE  
PLAZA AND ARTS TRAIL CONNECTOR

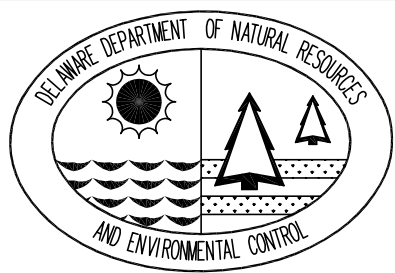
PROJECT NOTES AND TYPICAL SECTIONS

SEAL:

CIVIL ENGINEER:



CEI NO.: 125002.23



DESIGNED BY:

WJH

DRAWN BY:

DLD

CHECKED BY:

AES

DATE:

AUGUST 2018

SCALE:

N.T.S.

SHEET NO.:

C301

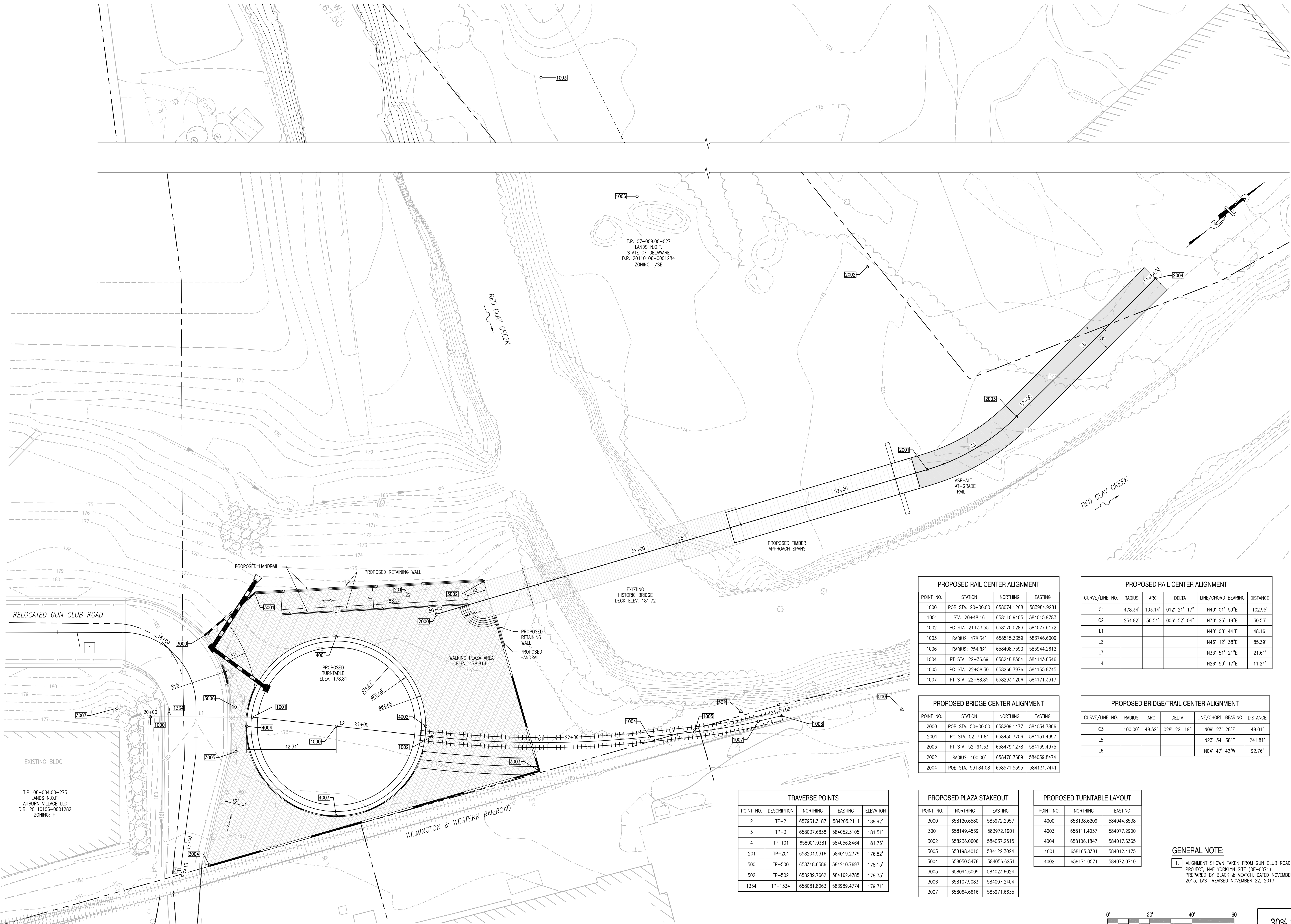
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DNREC CONT. No.

30% SUBMISSION





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T.P. 07-009.00-027  
LANDS N.O.F.  
STATE OF DELAWARE  
D.R. 20110106-0001284  
ZONING: I/SE

T.P. 08-004.00-273  
LANDS N.O.F.  
AUBURN VILLAGE, LLC  
D.R. 20110106-0001282  
ZONING: HI

PROPOSED RAIL CENTER ALIGNMENT				
POINT NO.	STATION	NORTHING	EASTING	
1000	POB STA. 20+00.00	658074.1268	583984.9281	
1001	STA. 20+48.16	658110.9405	584015.9783	
1002	PC STA. 21+33.55	658170.0283	584077.6172	
1003	RADIUS: 478.34'	658515.3359	583746.6009	
1006	RADIUS: 254.82'	658408.7590	583944.2612	
1004	PT STA. 22+36.69	658248.8504	584143.8346	
1005	PC STA. 22+58.30	658266.7976	584155.8745	
1007	PT STA. 22+88.85	658293.1206	584171.3317	

PROPOSED RAIL CENTER ALIGNMENT					
CURVE/LINE NO.	RADIUS	ARC	DELTA	LINE/CHORD BEARING	DISTANCE
C1	478.34'	103.14'	012° 21' 17"	N40° 01' 59"E	102.95'
C2	254.82'	30.54'	006° 52' 04"	N30° 25' 19"E	30.53'
L1				N40° 08' 44"E	48.16'
L2				N46° 12' 38"E	85.39'
L3				N33° 51' 21"E	21.61'
L4				N26° 59' 17"E	11.24'

PROPOSED BRIDGE CENTER ALIGNMENT				
POINT NO.	STATION	NORTHING	EASTING	
2000	POB STA. 50+00.00	658209.1477	584034.7806	
2001	PC STA. 52+41.81	658430.7706	584131.4997	
2003	PT STA. 52+91.33	658479.1278	584139.4975	
2002	RADIUS: 100.00'	658470.7689	584039.8474	
2004	POE STA. 53+84.08	658571.5595	584131.7441	

PROPOSED BRIDGE/TRAIL CENTER ALIGNMENT					
CURVE/LINE NO.	RADIUS	ARC	DELTA	LINE/CHORD BEARING	DISTANCE
C3	100.00'	49.52'	028° 22' 19"	N09° 23' 28"E	49.01'
L5				N23° 34' 38"E	241.81'
L6				N04° 47' 42"W	92.76'

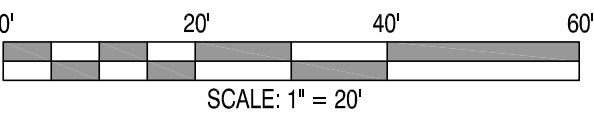
TRAVERSE POINTS				
POINT NO.	DESCRIPTION	NORTHING	EASTING	ELEVATION
2	TP-2	657931.3187	584205.2111	188.92'
3	TP-3	658037.6838	584052.3105	181.51'
4	TP 101	658001.0381	584056.8464	181.76'
201	TP-201	658204.5316	584019.2379	176.82'
500	TP-500	658348.6386	584210.7697	178.15'
502	TP-502	658289.7662	584162.4785	178.33'
1334	TP-1334	658081.8063	583989.4774	179.71'

PROPOSED PLAZA STAKEOUT				
POINT NO.	NORTHING	EASTING		
3000	658120.6580	583972.2957		
3001	658149.4539	583972.1901		
3002	658236.0606	584037.2515		
3003	658198.4010	584122.3024		
3004	658050.5476	584056.6231		
3005	658094.6009	584023.6024		
3006	658107.9083	584007.2404		
3007	658064.6616	583971.6635		

PROPOSED TURNTABLE LAYOUT				
POINT NO.	NORTHING	EASTING		
4000	658138.6209	584044.8538		
4003	658111.4037	584077.2900		
4004	658106.1847	584017.6365		
4001	658165.8381	584012.4175		
4002	658171.0571	584072.0710		

GENERAL NOTE:

1. ALIGNMENT SHOWN TAKEN FROM GUN CLUB ROAD PROJECT, NVF YORKLYN SITE (DE-0071) PREPARED BY BLACK & VEATCH, DATED NOVEMBER 2013, LAST REVISED NOVEMBER 22, 2013.



30% SUBMISSION

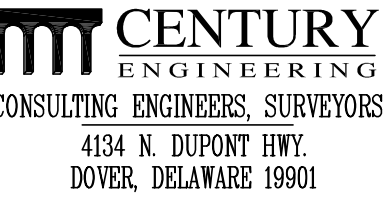
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DATE:	DESCRIPTION:	BY:	

NVF - AUBURN HEIGHTS PRESERVE  
PLAZA AND ARTS TRAIL CONNECTOR

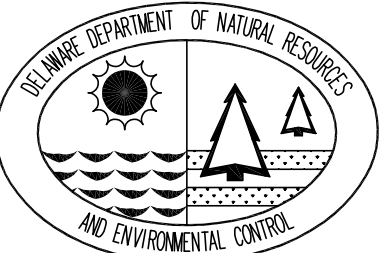
HORIZONTAL ALIGNMENT PLAN

SEAL:

CIVIL ENGINEER:



CEI NO.: 125002.23



DESIGNED BY:

WJH

DRAWN BY:

DLG

CHECKED BY:

AES

DATE:

AUGUST 2018

SCALE:

1" = 20'

SHEET NO.:

C303

CONTRACT NO.:

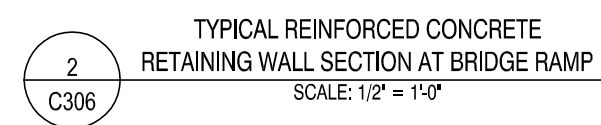
DNREC CONT. No.





4  
C306

SECTION - HANDRAIL  
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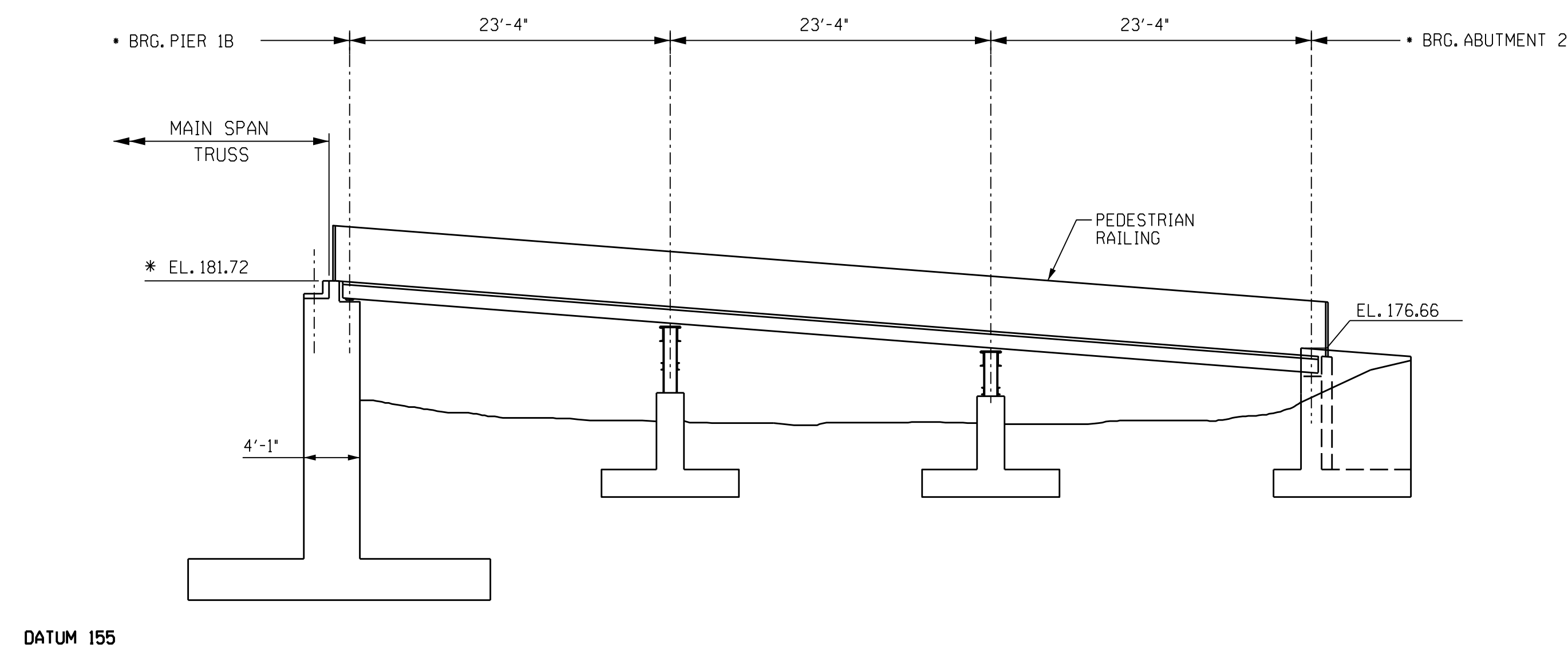
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2. GEOGRID FOR MSE RETAINING WALL NOT SHOWN FOR CLARITY.

NVF - AUBURN HEIGHTS PRESERVE PLAZA AND ARTS TRAIL CONNECTOR
SITE STRUCTURE DETAILS

CONTRACT NO.:  
DNREC CONT. No.

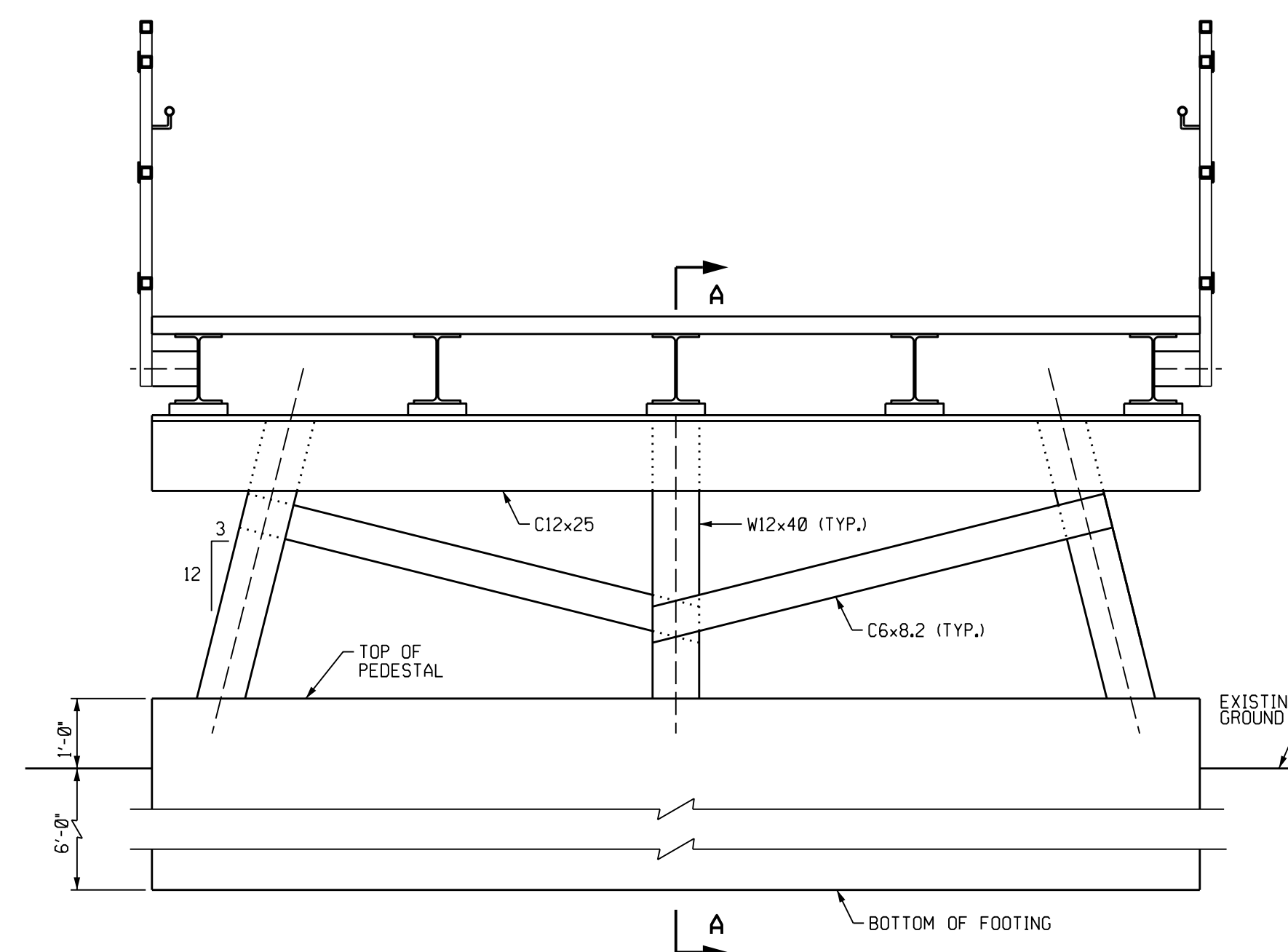
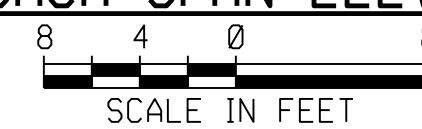
### 30% SUBMISSION



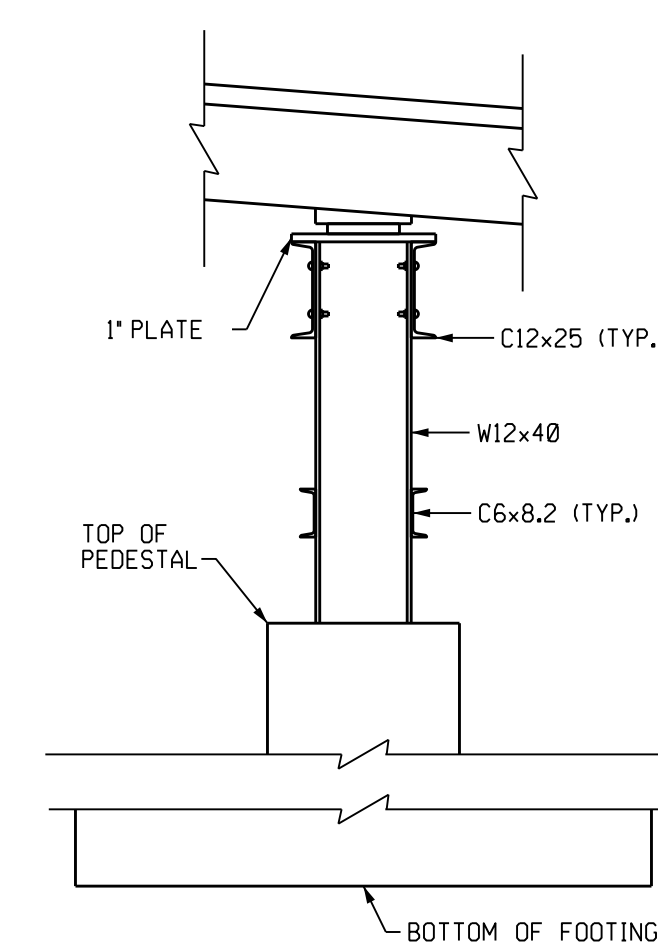


\* NOTE: ELEVATION IS CONSTANT ACROSS THE TRUSS BRIDGE

### APPROACH SPAN ELEVATION



TYPICAL APPROACH SPAN PIER ELEVATION



SECTION A-A

[illegible]

# NVF - AUBURN HEIGHTS PRESERVE PLAZA AND ARTS TRAIL CONNECTOR

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## CONCEPTUAL APPROACH SPAN DETAILS

SEAL:

**30% DESIGN  
SUBMISSION**

**CIVIL ENGINEER:**

---

**CENTURY**  
ENGINEERING  
CONSULTING ENGINEERS, SURVEYORS  
4134 N. DUPONT HWY.  
DOVER, DELAWARE 19901

CEI NO.: 125002.23



DESIGNED BY:  
MAR

DRAWN BY:  
TDD

CHECKED BY:  
BJT

DATE:  
JUNE 2018

SCALE:  
AS SHOWN

SHEET NO.:  
**S605**

CONTRACT NO.:  
DNREC CONT. No.